

Appl. No.: 10/046,300
Docket No.: 0033-0785P
Reply to Office Action of November 21, 2003

REMARKS

Claims 1-5 and 7 are pending in this application. Claims 1, 2 and 7 are independent claims. By this amendment, claims 1, 2 and 7 are amended and claim 6 is canceled without prejudice or disclaimer thereto.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

Copies of Initialed PTO-1449 Requested

Applicant respectfully requests copies of the initialed PTO-1449s submitted on January 16, 2002 and on July 28, 2003.

In reviewing the application file, the undersigned has noted that the appropriate initialed Form PTO-1449s in response to the Information Disclosure Statements (IDS) filed on January 16, 2003 and on July 28, 2003 have not been received by Applicant. The Examiner is therefore requested to return copies of the initialed Form PTO-1449s to the undersigned as soon as possible.

The Claims Satisfy The Requirements Of
35 U.S.C. §112, 1st and 2nd Paragraphs

The Office Action rejects claim 2 under 35 U.S.C. §112, 1st and 2nd paragraphs. These rejections are respectfully traversed.

Applicant respectfully submits that the amendment to claim 2 obviates the rejections of claim 2 under 35 U.S.C. §112, 1st and 2nd paragraphs. Specifically, the recitation of "a lower frequency" in original claim 2 is a typographical error. As result, claim 2 is amended to recite --higher frequency--.

Accordingly, withdrawal of the rejections of claim 2 under 35 U.S.C. §112, 1st and 2nd paragraphs is respectfully solicited.

The Claims Define Patentable Subject Matter

The Office Action makes the following rejections: (1) claims 1 and 7 are rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0056134 A1 to Abe et al. (hereafter Abe); (2) claims 2, 4 and 5 rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2001/0007151 A1 to Vorenkamp et al. (hereafter Vorenkamp); (3) claim 3 is rejected under 35 U.S.C. §103(a) as being unpatentable over Vorenkamp in view of U.S. Patent No. 5,930,696 to Tzuang et al. (hereafter Tzuang); and (4) claim 6 is rejected under 35 U.S.C. §103(a) as being unpatentable over Vorenkamp in view of U.S. Patent No. 5,705,966 to Carmi (hereafter Carmi).

These rejections are respectfully traversed.

The Claims Fail to be Anticipated

Applicant respectfully submits that both Abe and Vorenkamp fail to teach or suggest each and every feature as set forth in the claimed invention.

Independent claim 1 recites, *inter alia*, a cable modem tuner comprising an upstream circuit for transmitting a data signal to a CATV (cable television) station. The upstream circuit includes a gain controllable gain control circuit for receiving the data signal. At least one power amplifying circuit power-amplifies the data signal having been gain controlled by the gain control circuit. A control circuit controls the transmission/interruption of the data signal.

Independent claim 2 recites, *inter alia*, a cable modem tuner comprising a receiving unit for receiving a down signal from a CATV (cable television) station. The receiving unit includes an up converter for converting the down signal to a first intermediate frequency signal of higher frequency. A SAW filter selects the first intermediate frequency signal output from the up converter. A down converter converts the first intermediate frequency signal selected by the SAW filter to a second intermediate frequency signal of lower frequency for output. The SAW filter is formed of an oscillation circuit including a print coil or an air core coil.

Independent claim 7 recites, *inter alia*, a cable modem tuner including an upstream circuit for transmitting a data signal to a CATV (Cable Television) station and a receiving unit for receiving a down signal from said CATV station. A duplexer branches the data signal to the CATV station and the down signal from the CATV station. A return pass circuit outputs the data signal to the duplexer. A receiving unit receives the down signal branched by the duplexer. The receiving unit includes an up converter for converting the down signal to a first intermediate frequency signal of a higher frequency. A SAW filter selects the first intermediate frequency signal output from the up converter. A down converter converts the first intermediate frequency signal selected by the SAW filter to a second intermediate frequency signal of lower frequency for output. The SAW filter is formed of an oscillation circuit including a print coil or an air core coil.

In contrast with claim 1, Abe merely discloses a variable gain amplifier 502 that controls the gain of the up signal. (see Abe, paragraph 69, lines 11-12). However, Abe's variable gain amplifier 502 fails to correspond to a power amplifying circuit for power amplifying a

data signal with its' gain controlled. In other words, the Office Action is apparently interpreting Abe's variable gain control amplifier 502 as the claimed gain control circuit and the claimed power amplifying circuit. However, Abe fails to specifically disclose any type of power amplification. Abe merely discloses controlling the gain, nothing is expressly mentioned about power amplification. In addition, Abe fails to specifically disclose a power amplifying circuit. In fact, Abe mentions nothing about power. As such, Abe fails to teach or suggest the power amplifying circuit as set forth in claim 1.

As for claim 7, the cable modem tuner at least requires that a receiving unit is configured as a double conversion system including a SAW filter. However, Abe fails to disclose the kind of double conversion type cable modem tuner as set forth in claim 7.

As for the rejection of claims 2, 4 and 5 under Vorenkamp, the Office Action has interpreted claim 2 to read "higher frequency" instead of "lower frequency". As such, the Examiner alleges that Vorenkamp discloses the claimed cable modem tuner with the up-converter being taught by Vorenkamp's elements 506, 514 and First LO; a filter being disclosed by Vorenkamp's BPF located between 514 and 516 in Fig. 19; and a down-converter being disclosed by Vorenkamp's elements 516, 508, Second LO, 518 BPF located immediately after 518. However, a close review of Vorenkamp reveals that Vorenkamp fails to teach or suggest using a SAW filter.

The cable modem tuner according to amended claim 2 requires that it at least includes a SAW filter formed of an oscillation circuit including a print coil or an air core coil. Vorenkamp fails to disclose

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such a cable modem tuner, as conceded by the Examiner in conjunction with claim 6.

According to MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ...claims." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989). The elements must be arranged as required by the claims, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully submits that the Office Action has failed to establish the required *prima facie* case of anticipation because the cited references, both Abe and Vorenkamp, fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claims 1, 2 and 7 are allowable over both Abe and Vorenkamp for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, i.e., claims 4 and 5, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1, 2, 4, 5, and 7 under 35 U.S.C. §102(e) is respectfully solicited.

The Claims Fail to be Obvious

Applicant respectfully submits that, like Vorenkamp, both Tzuang and Carmi also fail to disclose the SAW filter as shown in the present application, specifically including a print coil or an air core coil. As such, both Tzuang and Carmi fail to make up for the deficiencies found in Vorenkamp.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicants respectfully submit that the combination of Vorenkamp with either Tzuang or Carmi fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that not only does the references fail to teach or suggest each and every feature as set forth in the claimed invention, but that one of ordinary skill in the art would not have been motivated to combine/modify the teachings of Vorenkamp with Tzuang and/or Carmi because there is no teaching or suggestion in any of

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the references regarding how or why one would modify such systems to arrive at the claimed invention.

Applicant respectfully submits that dependent claim 3 is allowable over the combination of Vorenkamp with Tzuang for at least the reasons noted above. Claim 6 is canceled, therefore the rejection pertaining thereto is moot.

Accordingly, withdrawal of the rejection of claims 3 and 6 under 35 U.S.C. §103(a) is respectfully requested.

Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 to schedule a Personal Interview.

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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

Respectfully submitted,
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